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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/031,001	07/16/2002	Hans-Peter Feuerbaum	CQ10070	3856

23493 7590 07/21/2003

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[REDACTED] EXAMINER

ANDERSON, BRUCE C

ART UNIT	PAPER NUMBER
	2881

DATE MAILED: 07/21/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

## Offic Action Summary

Applicati n N .	Applicant(s)
10/031,001	FEUERBAUM ET AL.
Examiner	Art Unit
BRUCE C ANDERSON	2881

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

1) Responsive to communication(s) filed on 16 July 2002.

2a) This action is FINAL.                            2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

4) Claim(s) 1-25 is/are pending in the application.

4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5) Claim(s) 14-19 is/are allowed.

6) Claim(s) 1,2,6-13 and 20-25 is/are rejected.

7) Claim(s) 3-5 and 13 is/are objected to.

8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) The proposed drawing correction filed on \_\_\_\_\_ is: a) approved b) disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12) The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. §§ 119 and 120

13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) All b) Some \* c) None of:

1.) Certified copies of the priority documents have been received.

2.) Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.

3.) Copies of the certified copies of the priority documents have been received in this National Stage

\* See the attached detailed Office action for a list of the certified copies not received.

14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) The translation of the foreign language provisional application has been received.

15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

### Attachment(s)

- 1) Notice of References Cited (PTO-892)  
2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.

- 4) Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_.  
5) Notice of Informal Patent Application (PTO-152)  
6) Other: \_\_\_\_\_

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 1-2, 6-12, and 20-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Herrmann (486) in view of Daimon (629) and Turner (519).

Herrmann (486) discloses a particle source (1), an objective lens (4), at least one deflector means to scan a sample, a secondary electron mirror (19) having a grid (23) (Figure 4) that is arranged outside of primary beam path (claim 2) and having an aperture or drift space (20), and a detector (10). Said secondary electrons leave the reflector (19) at a double angle of inclination of the reflector. In such an arrangement the angle of inclination is 45 degrees (col.4, lines 23-26). Note that although an electron

Art Unit: 2881

mirror is shown as planar in Figure 4, other forms may be used (col.4, lines 32-36).

Furthermore in the above arrangement it would seem that grid near the electron mirror would act as a low pass filter. In the combination above it is further assumed that since a potential can be applied to said mirror that the surface of such could be made of conductive material.

The secondary reference to Daimon demonstrates that one may utilize a high pass filter prior to a detector (claim 11). Note that the combination of a low pass filter near the reflector with a high pass filter near the detector, is well known in the prior art (col.1, lines 14-17). Hence it is obvious to one of ordinary skill in the art that one may modify the primary reference to Herrmann (486) to include one or more band pass filters in view of the teaching to the secondary reference to Daimon (629), if so desired.

The secondary reference to Turner (519) discloses that if an electron mirror with a low pass filter is being utilized as stated above, than it is not unusual in the prior art to further incorporate an electron absorber or dump next to such in order to absorb unwanted electrons and preventing them from reaching the detector. Such a modification can obviously be added to said primary reference in order to further refine the detected secondary electrons.

***Allowable Subject Matter***

4. Claims 3-5, and 13 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
5. Claims 14-19 are allowed.

Art Unit: 2881

***Conclusion***

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Frosien, Gerlach, Feurerbaum, Plows, and Lee have been cited to show other similar devices.

7. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BRUCE C ANDERSON whose telephone number is 703-308-4851. The examiner can normally be reached on MON.-FRI. 6:15AM-3:45PM (off ALT. FRI. ).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, JOHN LEE can be reached on 703-308-4116. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-7721 for regular communications and 703-308-2864 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

  
BRUCE C ANDERSON  
Primary Examiner  
Art Unit 2881

Application/Control Number: 10/031,001  
Art Unit: 2881

Page 5

BCA  
February 12, 2003